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| 10/575,342  | 04/11/2006  | Jean-Francois Stumbe        | 288261US0PCT        | 3536             |
| 22850 7590 09/21/2010<br>OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                             |                     |                  |
| EXAMINER<br>DOLLINGER, MICHAEL M  |             |                             |                     |                  |
| ART UNIT<br>1796  |             | PAPER NUMBER                |                     |                  |
| NOTIFICATION DATE<br>09/21/2010   |             | DELIVERY MODE<br>ELECTRONIC |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment does not affect the rejections of record because the scope of the claims have not changed. The amendment does clarify the claim language and henceforth will be entered in because they place the claims in better condition for appeal.

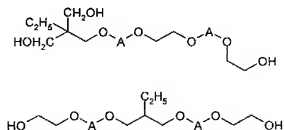
### ***Response to Arguments***

2. Applicant's arguments filed 09/10/2010 have been fully considered but they are not persuasive.

3. Applicants argue that the polyester of Saitoh is different from the claimed polyester and method of making because Saitoh disclose a three step method of making a hydroxyl terminated polyester than modifying it with a diisocyanate to form a polyurethane and then modifying the polyurethane with (meth)acrylic acid. Applicants argue that that the intermediate polyfunctional urethane modified polyester disclosed by Saitoh is different than the hyperbranched polyester according to the invention and therefore the final products obtained will be different. This argument is not convincing. The claims require a "hyperbranched polyester comprising ethylenically unsaturated groups" not a hyperbranched polyester without urethane groups. The product-by-process method of claim 1 and the processes of claims 5 and 6 are also worded with comprising language. There is nothing in the claims that excludes the additional step of chain extension with a diisocyanate. In fact, Applicants specifically disclose the same

chain extension with a diisocyanate when preparing the claimed hyperbranched polyester comprising ethylenically unsaturated groups [see paragraphs 0088-0092 of PGPUB US 2007/0027269 A1].

4. Applicants' argue that Meixner does not disclose the claimed composition because the ratio of OH/CO<sub>2</sub>H of polyol (including ethylene glycol and trihydric alcohol) to dicarboxylic acid is 1.95, outside of the claimed range of 1.5/1 to 1/1.5. This argument is not convincing. The ratio Applicants have calculated from the prior art polyesters is not the same as the claimed ratio. The claimed ratio is dicarboxylic acid to trifunctional alcohol. Applicants have calculated the ratio of dicarboxylic acid to (difunctional plus trifunctional alcohols) from the prior art. The OH/CO<sub>2</sub>H ratio of dicarboxylic acid to trifunctional alcohol in Meixner is 1.5/2 or 1/1.33.
5. Applicants also argue that the polyester of Meixner will not be hyperbranched as claimed. Applicants argue that because of the "extreme" amount of diol in the polyesters of Meixner, the disclosed polyester will be a completely alcohol terminated polyester with an acid number of zero or almost zero. Applicants argue that the disclosed polyester will have the following structure:



This argument is not convincing. Applicants have not taken into account the presence of acrylic acid in the reaction mixture [see Table 1] and no acrylic acid residues appear in Applicants chemical structures. Applicants' contention that the acid number of the polyesters will be zero or close to zero is demonstrably false; the acid numbers of polyester examples 1-3 are between 10 and 22 mg KOH/g [see Table 2].

1. Applicants argue that Saitoh does not disclose the methods claimed in claims 5 and 6 because the method of Saitoh is three stages whereas the methods of claims 5 and 6 are two stage and single stage, respectively. The three stages of Saitoh are making a hydroxyl terminated polyester, 2) modifying it with a diisocyanate and 3) modifying that with a (meth)acrylic acid. Claims 5 and 6 do not require the modification with diisocyanate. This argument is not convincing. Claim 5 only requires that an ethylenically unsaturated compound is reacted with the polyester *subsequent to* condensation of the polycarboxylic acid and polyol components. Saitoh discloses such a method with an additional step before reaction with the unsaturated compound. The only difference between the process of claim 6 and the disclosed process/process of claim 5 is the order of adding ingredients, i.e. adding the ethylenically unsaturated compound (c) during condensation of the polyester as opposed to after condensation of the polyester. Case law holds that the selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MIKE DOLLINGER whose telephone number is (571)270-5464. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/mmd/

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